VISHNEVSKIY, V.M., kand.istor.nauk; GAYDASHENKO, K.P.; DUDOROV, V.M.; KLEYMAN, T.Ye.; KHUSHANOV, A.I., kand.istor.nauk; KUCHERYAVENKO, V.T.; LEVITSKIY, V.L.; OKSYUZ'YAN, D.V.; POLYAKOV, V.V.; SAMOKHVALOV, V.A.; SVIN'IN, V.V.; STEPANOVA, L.Y.; SUSHKOV, B.A.; FISHER, Ye.L.; EHLYKH, D.P., otv.red.; AVZRKIN, B.Z., red.; ZUSMAN, Ye.I., red.; MAYOROV, V.M., red.; KIREYEVA, T.R., vedushchiy red.; BUTOVA, L.A., tekhn.red.

Vladivostok, 1860-1960. Vladivostok, Primorskoe knizhnoe izd-vo, 1960. 271 p. (MIRA 13:11)
(Vladivostok)

SHURYGIN, V.P., kand.tekhn.nauk; IVANTSOV, M.G., inzh.; KLEDKAN, V.M., inzh.; MATSNEV, N.P., inzh.; PIETUSHAL', F.V., inzh.; MUKHRANOV, M.A., inzh.; NIKOLAYEV, N.P., inzh.; ANOSHKIN, A.I., inzh.; PILIPENKO, M.P., mekhanizator SMP-205; SAVIN, V.D., mekhanizator SMP-205

"Over-all mechanization of construction in railroad electrification" by A.P. Alekseev. Reviewed by V.P. Shurygin and others. Transp. stroi. 11 no.8:59-60 Ag '61. (MIRA 14:9)
(Railroads--Electrification)
(Alekseev, A.P.)

KAYSER, [illegible]., inzh.; KLEYMAN, V.V., inzh.

Schematic for connecting two lines with one circuit breaker. Energetik. 13 no.7:24-27 Jl '65. (MIRA 18:8)

AT(m)/EWG(m)/EWT(l) ... f-4 IJP(c) RDW/JD

ACCESSION NR: AP5009909 UR/0032/65/031/004/0410/0412

AUTHORS: Knyazeva, R. N.; Kleyman, V. Ia.

TITLE: The separation and determination of selenium and tellurium by sintering with Eshka mixture

SOURCE: Zavodskaya laboratoriya, v. 31, no. 4, 1965, 410-412

TOPIC TAGS: selenium, tellurium, sintering

ABSTRACT: A method is suggested that will permit decomposition of a sample with simultaneous separation of Te and Se, considerably shortening the time of analysis. When sintering Se and Te for 40 minutes with Eshka mixture (1 part, by weight, of Na_2CO_3 and 2 parts MgO) at 800C, magnesium telemate and magnesium orthotellurate are formed, the first readily soluble in water, the second relatively insoluble. After washing the residue with hot water, the Se goes into solution, where it may be determined by any desired method. Good results have been obtained with the thiosulfate method (in which the Se selenate is reduced to selenite by heating in HCl). Experiments have shown that no loss of Se is observed, even when the HCl solution is boiled. The Te remains in the undissolved sediment with all its accompanying elements. To dissolve this sediment,

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ACCESSION NR: AP5009909

a number of acids were tried: sulfuric, hydrochloric, nitric, and phosphoric. The last gave best results, since many metallic phosphates are difficultly soluble, whereas Mg orthotellurate is readily dissolved in phosphoric acid. HCl [illegible] the phosphoric acid solution; Te is precipitated by SnCl, and determined by the iodometric method. When the content of Se and Te in the sample is small, the colorimetric method may be used after sintering and solution in water. Fe, Cu, Pb, Ag, Ba, Ca, Cr, Al, Si, C, or As, when present, do not interfere with results obtained by this method. Analysis by using Eshka mixture requires 2-3 hours, which is but 1/4-1/3 the time required by other methods, yet giving equivalent accuracy. Orig. art. has: 2 tables.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet im. A. M. Gor'kogo (Ural State University)

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 003 OTHER: 000

Card 2/2

KLEYMAN, Ya.

School of progressive methods. Sov. profsoiuzy 7 no.16:31-32 Ag '59. (MIRA 12:12)

1. Starshiy inzhener otdela truda i zarabotnoy platy Khar'kovskogo traktornogo zavoda.
(Steel industry)

KLEYMAN, Ya.M. (Vinnitsa)

Shortcoming. Mat. v shkole no.5:43-44 S-O '58. (MIRA 11:10)
(Geometry, Solid)

KLEYMAN, Ya. S.

[illegible]

High speed moisture meter. Tekst. prom. 15 no.[illegible] (MIRA 8:6)

1. Glavnyy inzhener Urbakhskogo glavnogo upravleniya tekstil'noy promyshlennosti.
(Pyrometry)

KLEYMAN, Ya.S.; ALESHIN, M.V.

Let us extend the use of short jute and hemp fibers. Tekst.prom. 15 no.12:50-51 D '55. (MLRA 9:3)

1. Glavnyy inzhener "Uzglavluba" (for Kleyman); 2. Glavnyy inzhener Tashkentskoy konopnoy fabriki (for Aleshin).
(Jute) (Hemp)

KLEYMAN, Ya.S.

ARNO, A.A., starshiy nauchnyy sotrudnik; OSTRETSOV, N.I., starshiy nauchnyy sotrudnik; KLEYMAN, Ya.S.

Redesign of the feed unit on a TKM-200-K machine. Tekst. prom. 17 no.7:53-54 Jl '57. (MLRA 10:9)

1. Glavnyy inzhener Uglavluba (for Kleyman). (Retting) (Textile machinery)

KLEYMAN, Ya.S.

How should jute and kenaf mills be operated. Tekst.prom. 19 no.8:15-18 Ag '59. (MIRA 13:1)

1. Zamestitel' nachal'nika Upravleniya khlopkolubproma Tashkentskogo sovnarkhoza.
(Jute) (Textile factories)

KLEYMAN, Ya.S., inzh.

Effect of the time of denaf harvesting (for the manufacture of scutched green bast) on the physical and mechanical properties of the fiber. Sbor.nauch.-issl.rab.TTI no.12:105-114 '61. (MIRA 15:11)

(Ambary hemp--Testing)

KIZYMAN, Ya. Z.: Cand. Member Phys-Math Sci (diss) -- "On the movement of a multi-component medium". Moscow, 1958. 12 pp (Inst of Mechanics Acad Sci USSR), 150 copies (KL, No 4, 1959, 121)

~~10(4)~~ 10,2000

AUTHOR: Kleyman, Ya.Z. SOV/155-58-4-16/34

TITLE: On Stationary Motions of Mixtures in Tubes (Ob ustanovivshemsya dvishenii smesey v trubakh)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Fiziko-matematicheskiye nauki, 1958, Nr 4, pp 93 - 102 (USSR)

ABSTRACT: The author considers the flow of a mixture consisting of two components in an inclined tube of variable cross section. The individual behavior of the single components is taken into account, e.g. the fact that under contractions of the tube the variation of velocity of the two components may be different. Furthermore the influence is considered which the particles of a component effect on each other (impulse transmission from one particle to another of the same component). Incompressible mixtures in cylindrical tubes are investigated in detail; also mixtures, the components of which have equal initial velocities, and motions in horizontal cylindric tubes.

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SOV-46-4-3-5/18

AUTHOR: Kleyman, Ya. Z.

TITLE: On the Propagation of Weak Discontinuities in a Multi-Component Medium (O rasprostranenii voln slabogo razryva v mnogokomponentnoy srede)

PERIODICAL: Akusticheskiy Zhurnal, 1958, Vol 4, Nr 3, pp 253-262 (USSR)

ABSTRACT: Some regularities in the propagation of weak discontinuities in a multi-component mixture are established. An equation which describes the propagation of the waves is derived and investigated. In particular, it is established that, in the case of different speeds of motion of the components in an N-component medium, under certain conditions the propagation of waves with different velocities may take place and their number may lie between 2 and 2N . The dependence of the velocities of propagation of the waves upon the quantitative composition of a two-component mixture is discussed. In the case where the velocities of the components are not very different (which is the most interesting case in practice) an approximate formula is derived which may be used to determine the velocity of propagation of

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SOV-46-4-3-6/18

On the Propagation of Weak Discontinuities in a Multi-Component Medium

weak discontinuities. The method employed in the discussion of the motion of a multi-component medium is that due to Rakhmatulin (Ref.1). It is assumed that for each of the components the remaining components appear as a porous medium in which the pressure at a given point may be taken as common to all the components. The paper is highly mathematical and includes 2 figures and 2 Soviet references.

ASSOCIATION: Institut mekhaniki, AN SSSR, Moskva (The Institute of Mechanics of the Academy of Sciences of the USSR, Moscow)

SUBMITTED: July 17, 1957.

1. Sound--Propagation 2. Sound--Velocity 3. Mathematics--Applications

Card 2/2

AUTHOR: Kleyman, Ya.Z. SOV/46-4-4-13/20

TITLE: On Attenuation of Harmonic Waves in Mixtures (K voprosu o zatukhanii garmonicheskikh voln v smesyakh)

PERIODICAL: Akusticheskiy Zhurnal, 1958, Vol 4, Nr 4, pp 365-367 (USSR)

ABSTRACT: Propagation of waves in mixtures is affected not only by the viscosity of the components but also by the friction between them. This is because, at a given point, particles of different components possess in general, different velocities. In his study of the effect of the relative motion of components in mixtures, the author discusses attenuation of plane harmonic waves in a two-component disperse medium. The attenuation is taken to be due only to friction caused by the difference in velocities of particles of the two components; viscosities of both components are neglected. Both components are regarded as continuous miscible media. The author assumes that pressure at each point is the

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...are for both components. A system of equations describing the motion of such mixtures was given in Ref 3. The interaction between the components was taken to be due to variations in the cross-section of the flux tubes of the components and due to forces which depend on the relative velocities of the two types of particles. The paper is entirely theoretical. There are 4 Soviet references.

ASSOCIATION: Institut mekhaniki AN SSSR, Moskva (Institute of Mechanics, Academy of Sciences of the U.S.S.R., Moscow)

SUBMITTED: May 16, 1958

AUTHOR: Kleyman, Ya.Z. (Moscow) 40-22-2-7/21

TITLE: On the Propagation of Strong Discontinuities in a Medium Consisting of Several Components (O rasprostranenii sil'nykh razryvov v mnogokomponentnoy srede)

PERIODICAL: Prikladnaya matematika i mekhanika, 1958, Vol 22, Nr 2, pp 197-205 (USSR)

ABSTRACT: The author investigates the motion of a medium consisting of several components which may penetrate each other during the motion. Investigations of such kind were carried out for the first time by Rachmatulin. According to this proposed method the motion of every single component is calculated analogously to the motion of a homogeneous medium. There it proves necessary to introduce, besides of the notion of the real density of the n-th component ρ_n^0, still the notion

$$\rho_n = \frac{M_n}{W}$$

which represents another kind of density of the n-th component. M_n is the mass of the n-th component in a volume W of the medium.

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On the Propagation of Strong Discontinuities in a Medium Consisting of Several Components 40-22-2-7/21

The investigations are restricted to such media in which the pressure in every point can be assumed to be equally high for all occurring components of the medium. The relations generally derived at first for strong discontinuities can still be simplified for the case of shock waves of small intensity. They are discussed in the paper without application to special cases.
There is 1 figure, and 1 Soviet reference.

SUBMITTED: July 9, 1957

1. Materials--Analysis 2. Shock waves--Mathematical analysis

Card 2/2

SOV/179-59-1-7/36

AUTHOR: Kleyman, Ya. Z. (Moscow)

TITLE: On the Established Motion of a Compressed Composite Medium (Ob ustanovivshemsya dvizhenii szhimayemoy mnogokomponentnoy sredy)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1959, Nr 1, pp 50-55 (USSR)

ABSTRACT: The motion of an N-component mixture in a tube, the cross-section of which is a function of $f(x)$ is considered. The equations of motion are Eqs.(1.1) and (1.2) and the relation Eq.(1.3) with a small derivate $df(x)/dx$ are applied; (p - pressure, $v_n \rho_n^o$ - velocity, real and reduced densities on u-component respectively, M - mass of volume W, k_{jn} - function of interaction of u^{th} and j^{th} component, N - number of components, $f(x) = x^s$, where $s = 0$ for one-directional motion, $s = 1$, $s = 2$ - motion of cylindrical and spherical symmetry respectively). The pressure p

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On the Established Motion of a Compressed Composite Medium

at every point of the medium is expressed by Eq.(1.4). The analysis of Eq.(1.2) can be performed in order to determine the parameters of the motion. It can be shown that the sum of all N equations derived from Eq.(1.2) can be written as Eq.(1.6) and Eqs.(1.7), (1.8), obtained from Eq.(1.1) by multiplying its terms by ρ_n^o and ρ_n respectively. Excluding dp/dx from Eqs.(1.6) and (1.9) and substituting Eq.(1.7), an expression (1.10) is obtained, where A and B_n can be expressed as Eqs.(1.11) and (1.12). The value of A will be placed in the denominator of all parameters of the mixture. When $A>0$ the motion will be sub-critical and when $A<0$ it will be ultra-critical. The critical condition of the parameters ($A = 0$, Eq.(1.13)) will be related to the velocity of a mixture equal to that of sound. This can be determined from Eq.(1.13) when:

$(\rho_1/\rho_1^o = 1,\ \rho_2/\rho_2^o = \ldots = \rho_N/\rho_N^o = 0)$ and from Eq.(1.14).

A continuous transition from an ultra-critical to sub-critical condition is impossible, which can be shown by Eq.(1.15). In the case of a 2-component mixture expressed by Eqs.(2.1) and (2.2), the motion will be sub-critical ($A>0$) if:

On the Established Motion of a Compressed Composite Medium

$\rho_1 {}^o v_1^2 < 1/\xi$, $\rho_2 {}^o v_2^2 < 1/\xi$ and ultra-critical ($A<0$) if $\rho_1 {}^o v_1^2 > 1/\xi$, $\rho_2 {}^o v_2^2 > 1/\xi$. The variations (a decrease or an increase) of value of the parameters can be determined by considering a relation $\gamma = M_1/M_2 = \rho_1/\rho_2$ and is expressed by Eqs.(2.3) and (2.4). The relations Eq.(2.5) and (2.6) for $\gamma = 0$ and $A = 0$ are shown in the form of a graph on p 55 for positive y_1 and y_2. The curve (2.6) divides the plane y_1, y_2 into two parts, each corresponding to the sub-critical and ultra-critical motions, and a straight line (2.5) - into two parts corresponding to $\lambda > 0$ and $\lambda < 0$. It can be seen from the graph that in the case of Eq.(2.4), when the motion is sub-critical and $\lambda > 0$, the content of mass of the faster component increases and the opposite applies

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On the Established Motion of a Compressed Composite Medium.

if $\lambda < 0$. If the motion is ultra-critical, the mass of the faster component always increases. There are no tables, 1 figure and 3 Soviet references.

SUBMITTED: December 16, 1957.

KLEYMAN, Ya.Z.

Propagation of waves in grounds. Izv.AN Us.SSR.Ser.tekh.nauk no.3:33-43 '59. (MIRA 12:7)

1. Institut mekhaniki AN SSSR.
(Soil mechanics) (Wave mechanics)

SOV/46-5-2-5/34

AUTHOR: Kleyman, Ya. Z.

TITLE: Certain Peculiarities of the Motion of Mixtures (Nekotoryye osobennosti dvizheniya smesey)

PERIODICAL: Akusticheskiy zhurnal, 1959, Vol 5, Nr 2, pp 157-165 (USSR)

ABSTRACT: The author discusses plane, cylindrical and spherical compression and rarefaction waves propagated in a multi-component medium. The acoustic approximation is used. It is shown that the components may be separated behind a wave-front because of differences in their velocities. Peculiarities of wave motion of mixtures, compared with similar motion of a single-component medium, are discussed. It is shown that under certain conditions an assembly of waves, propagated one behind the other, whose number is equal to the number of components, may be produced in a mixture. The first waves are similar to the compression and rarefaction waves in a single-component medium; the other waves are characteristic of mixtures and they disappear when, in the limit, the mixture becomes a single-component

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Certain Peculiarities of the Motion of Mixtures

medium. The paper is entirely theoretical. There is 1 figure and 3 Soviet references.

ASSOCIATION: Institut mekhaniki AN SSSR, Moskva (Mechanics Institute, Ac. Sc. USSR, Moscow)

SUBMITTED: January 10, 1958

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SOV/46-5-3-6/32

10(2)
AUTHOR: Kleyman, Ya.Z.

TITLE: Certain Cases of Motion of Two-Component Mixtures (Nekotoryye sluchai ivisheniya dvukhkomponentnykh smesey)

PERIODICAL: Akusticheskiy zhurnal, 1959, Vol 5, Nr 3, pp 301-313 (USSR)

ABSTRACT: In an earlier paper (Ref 1) the author dealt with the principal properties of motion of multi-component mixtures, neglecting friction between components. This friction must be allowed for in solution of all concrete problems, since it may affect the results both quantitatively and qualitatively. The present paper deals with certain cases of non-steady-state motion of two-component media using the acoustic approximation and allowing for friction between components. The cases discussed are: flow of the mixture from a tube, propagation of a perturbation which arose at the medium boundary, explosions. By way of illustration the author discusses in detail the case of water-saturated sand. The paper is entirely theoretical. Acknowledgment is made to Kh.A. Rakhmatulin for his advice. There are 6 figures and 4 references, 3 of which are Soviet and 1 translation from English into Russian.

Card 1/1

ASSOCIATION: Institut mekhaniki AN SSSR, Moskva (Mechanics Institute, Ac.Sc.USSR, Moscow)

SUBMITTED: August 10, 1958

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S/179/60/000/01/009/034
E081/E535

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AUTHOR: Kleyman, Ya. Z. (Moscow)

TITLE: The Problem of Wave Movements of Two-Component Media

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1960, Nr 1, pp 60-69 (USSR)

ABSTRACT: The paper is a continuation of previous work (Refs 1,2,5). The problem is dealt with in the linear approximation; examples of some applications are: (1) unsteady outflow of a mixture from a cylindrical tube; (2) propagation in the mixture of disturbances arising at the boundary dividing two media; (3) explosions in two-component media. The system of equations governing the motion in plane, cylindrical and spherical waves is given at the top of p 61 in which p is the pressure, v_1 and v_2 the velocities of the components, ρ_1^o, ρ_2^o, ρ_1, ρ_2 the true and reduced densities of the components, p_o, ρ_{o1}^o, ρ_{o2}^o initial values of pressure and true density, k the coefficient of mutual influence (the reduced density of a component in a given volume of mixture is the density

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The Problem of Wave Movements of Two-Component Media

the component would have if it occupied the whole volume by itself). For plane waves, s = 0, for cylindrical waves s = 1 and for spherical waves s = 2. In the last two cases x represents the radius-vector corresponding to cylindrical or spherical coordinate systems. Linearization of these equations about the rest state is accomplished by taking

$$p = p_o + p', \quad \rho_i^o = \rho_{oi}^o + \rho_i^{o'}, \quad \rho_i = \rho_{oi} + \rho_i' \quad (i = 1.2)$$

where p_o; ρ_{o1}^o, ρ_{o2}^o, ρ_{o1}, ρ_{o2} are the values of the parameters of the undisturbed body and p', $\rho_1^{o'}$, $\rho_2^{o'}$, ρ_1', ρ_2' are very small quantities. The velocity components v_1 and v_2 are also very small. After linearization, the equations (1) to (5) are obtained, from which are derived equations (7), (8) and (9) in the three unknowns $p'(x,t)$, $w_1(x,t)$, $w_2(x,t)$. The initial conditions are expressed by (10) and the boundary

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condition by (11), where $x_o = x_o(t)$ is the boundary coordinate. These equations are solved by introducing the operational representation

$$P(m,x) = \int_o^\infty p'(x,t)e^{-mt}dt, \quad W_i(m,x) = \int_o^\infty w_i(x,t)e^{-mt}dt \quad (i=1.2)$$

which leads to the ordinary differential equation (14) subject to the condition (15). For plane waves ($s = 0$) the solution of (14) is given by (16); the expression (20) is the representation of the velocity components. The initial velocity components v_{x1}, v_{x2} at the boundary $x = x_o$ are given for constant boundary pressure f_x by Eq (21) and, for a pressure which is an arbitrary function f(t) of time, by (23). It follows from (23) that the paths described by the particles situated on the dividing boundary at zero time are given by (25). To find the parameters of the mixture at an arbitrary point x, the radical in (18) is resolved into a series with negative powers of m, which with the aid of the function Φ(Eq 26)

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leads to Eqs (27) and (28). Using (23) and (27) in (16) and (20) gives the equations (29) for $p'(x,t)$ and $v_i(x,t)$. For constant boundary pressure, these become Eqs (31). For spherical symmetry ($s = 2$), the solution of (14) is (33). The velocity components are represented by (35), and on the basis of (27), (19), (34), (33) and (35), $p'(x,t)$ and $v_i(x,t)$ are given by (36) (not numbered in text). For constant boundary pressure (36) is replaced by (39). For cylindrical symmetry ($s = 1$) the general solution of (14) is expressed in terms of cylinder functions of purely imaginary argument. In this case the velocities are represented by the first equation p 69 and $p'(x,t)$, $v_i(s,t)$ by the second and third equations respectively.
There are 5 Soviet references.

SUBMITTED: June 30, 1958

Card 4/4

KLEYMAN, Ya.Z. (Moskva)

Speed of sound in mixtures containing suspended particles. Akust. zhur. 7 no.2:262-264 '61. (MIRA 14:7)
(Sound--Speed) (Suspensions (Chemistry))

KLEYMAN, Ya.Z.

Introducing the concept of interpenetrating streams in hydraulics.
Izv. AN Us. SSR. Ser. takh. nauk 9 no.4:61-69 '65.
(MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

ACC NR: AR6029530 (N) SOURCE CODE: UR/0046/66/012/003/0325/0332

AUTHOR: Kleyman, Ya. Z. (Moscow)

ORG: none

TITLE: Form of the surface of a weak discontinuity in a medium with variable speed of sound

SOURCE: Akusticheskiy zhurnal, v. 12, no. 3, 1966, 325-332

TOPIC TAGS: acoustic speed, sound wave, wave propagation, wave front, shock wave front, waveguide acoustics

ABSTRACT: To obtain an analytic method of determining the front of a sound wave propagating in an inhomogeneous medium or in a medium with variable temperature, and to investigate the laws governing the propagation of weak shock waves in inhomogeneous media, the author considers the propagation of waves between two parallel planes or in a tube of round cross section. It is assumed that in the case of the plane boundaries the velocity of sound in any point depends only on the distance between the point and the boundary, and in the case of a tube it depends on the distance to the tube axis. Only the deformation of the wave front due to change in the speed of sound along the coordinate is considered, and reflection is not taken into account. A partial differential equation is derived for the wave front and its solution is obtained in closed form. Several particular examples are considered. These include the limiting surface of a weak shock wave front propagating near the earth's surface.

Card 1/2 UDC: 534.222.1

ACC NR: AP6029530

The distance at which the wave front becomes stabilized is estimated. Other examples considered are those when the distribution of speed of sound in the medium is approximated by a parabola. The time after which the propagation becomes asymptotically stationary is determined. Orig. art. has: 4 figures and 15 formulas.

SUB CODE: 20/ SUBM DATE: 29Jul64

Card 2/2

KLEYMAN, Yu. L.

Study of the capacity and secondary emission nonuniformities of dielectric films by the method of a fast oscillating electron ray. V. N. Lepeshinskaya and Yu. L. Kleiman. *Trudy Leningrad. Politekh. Inst. im. M. I. Kalinina* 1955, No. 181, 195–200.—To avoid an elec. charge of the dielec. film target, the bombarding primary electron beam oscillates on the target surface with a high frequency. The beam focus was 0.6–0.7 mm. in diam. The impulse minimum duration was 15 microsec. The oscillation speed was approx. 2–3 × 10[4] cm./sec. Simultaneously, a corresponding impulse is given to the measuring oscillograph. When the beam hits the target, a signal, proportional to $(I_s - I_1)$, is generated. Amplified, the signal is combined with the deflection of the primary beam, producing an oscillogram, the ordinates of which correspond to $(I_s - I_1)$, and the abscissas to the deflections. Depending on the secondary emissivity, the indicated current is const. or variable. For capacity measurements, the speed of the primary beam oscillation was decreased 10–20 times, and the primary current intensity increased 7 times. Under this condition, the signal depended on the capacity of the dielec. at the spot where it was hit by the primary beam. Tests gave correct results of Ni secondary emission. Electrolytically produced Al_2O_3 film on pure Al was 30–40 microns thick and showed, after a repeated oxidation, 1000 megohm resistance. In vacuum thermally treated film had a secondary emission coeff. up to 3.2. A Cu-Mg alloy had shown a coeff. up to 4 with a high uniformity. Cataphoretically produced MgO film of several dozens microns thickness had a secondary emission coeff. up to 3.2. Capacitance of Al_2O_3 was found to be uniform.

F. Rysthenko

KLEYMAN, Z.Ya.

Apparatus for determining the mechanical equivalent of heat. Patent U.S.S.R. 71, 756, Dec. 31, 1949.
(CA 47 no.19:9682 '53)

ACCESSION NR: AP4036573 S/0139/64/000/002/0160/0165

AUTHORS: Kleyman, Z. Ya.; Stefanova, T. A.

TITLE: Effect of x-rays on properties of point-contact germanium diodes

SOURCE: IVUZ. Fizika, no. 2, 1964, 160-165

TOPIC TAGS: germanium diode, rectification factor, photoelectric emission, reverse potential, charge carrier, semiconductor, URS 70 apparatus

ABSTRACT: The effect of x-rays on the germanium diode p-n junction characteristics was studied. Types of diodes irradiated were DG-Ts2, DG-Ts/1 and DG-Ts8. The x-rays were supplied by URS-70 apparatus with tungsten and copper anticathodes. The distance between the irradiated diodes and the x-ray anticathode tube was 10 cm. The results showed that the current strength is unaffected in the forward direction but increases sharply in the reverse direction, thus substantially lowering the diode rectification factor. A series of tests was conducted to study the dependence of the photoelectric enhancement of the reverse current ΔI_r on the radiation intensity. This effect was measured as a function of x-ray tube emission current rate, the accelerating potential, and the reverse potential, with one or

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ACCESSION NR: AP4036573

more parameters held constant in each test. The increase in the reverse current is attributed to an increase in free minority charge carriers (electrons in p-type semiconductors and holes in electron semiconductors). ΔI_r is found to be independent of the hardness of the incident x-rays in the 45-60 kv acceleration potential range. This is shown to be caused by a compensation between increasing the number of free electrons and decreasing their absorption capacity in the barrier layer. The results show the possibility of using germanium diodes as x-ray radiation monitors. Orig. art. has: 7 figures.

ASSOCIATION: Voyennaya inshenernaya akademiya imeni F. E. Dzerzhinskogo (Military Engineering Academy)

SUBMITTED: 16Jul62 ATD PRESS: 3085 ENCL: 00

SUB CODE: SS, OP NO REF SOV: 007 OTHER: 004

Card 2/2

KLEYMENNYY, L. (Novo-Nikolayevka, Zaporozhskaya oblast')

When comrades live in accord. Pozh.delo 7 no.9:29 S '61.
(MIRA 14:11)
(Zaporozh'ye Province--Fire extinction--Societies)

KLEYMENOV, A., inzh.; CHIRYAYEV, Yu., inzh.; SAPRONKIN, V.

The "Elektron-2" receiver. Radio no.5:47-48 My '65. (MIRA 18:5)

KLEYMENOV, A., inzh.

Automating the selling of tickets. Rech. transp. 24 no.5:27-28 '65. (MIRA 18:9)

1. Ministerstvo putey soobshcheniya.

L 33768-66 EWT(d)/EWT(1)/EWP(c)/EWP(v)/EWP(k)/EWP(h)/EWP(1) IJP(c) BC

ACC NR: AP6006141 SOURCE CODE: UR/0376/65/001/010/1292/1300

AUTHOR: Gerashchenko, Ye. I.; Kleymenov, A. F.

ORG: Sverdlovsk Department of the Mathematical Institute im. V. A. Steklov (Sverdlovskoye otdeleniye Matematicheskogo instituta)

TITLE: Analysis of a nonlinear system by the method of separation of motions

SOURCE: Differentsial'nyye uravneniye, v. 1, no. 10, 1965, 1292-1300

TOPIC TAGS: nonlinear differential equation, nonlinear mechanics, nonlinear oscillation

ABSTRACT: The authors apply the method of separation of motions to the investigation of a system in a forced slipping regime through the organization of high-order slipping regimes. The system as discussed by Ye. A. Barbashin and Ye. I. Gerashchenko (Differentsial'nyye uravneniye, 1, no. k. 25-32, 1965) contains a controlled object with nonlinearities characteristic of those found in practice, such as constraints, insensitive zones, and free-playing slack. Accelerated slippage is important because it imparts to a control system the properties of essentially nonlinear systems and intensifies the "roughness" of the controller relative to the parameters of the controlled object, besides improving the quality of control. To realize a forced slipping regime necessitates complicating the structure of the controller, which leads to con-

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siderable difficulties in the mathematical analysis of the system. The stability of a system consisting of a control and linear object is regularly investigated by separation of the motions into fast and slow components. This is the method of A. A. Andronov, A. A. Vitt, and S. E. Khaykin in the theory of discontinuous oscillations. However, the controlled object is generally nonlinear; therefore, the present report demonstrates how to apply this method of separation of motions to the investigation of the above slipping regime. It considers the following system:

$$\frac{dx_1}{dt} = x_2, \quad \frac{dx_2}{dt} = \Phi(x_3, \dot{x}_3),$$
$$\frac{dx_3}{dt} = -ax_3 - bx_2 - cx_1 - K\Psi(|x_1|\operatorname{sign}\sigma_1),$$
$$\sigma_1 = x_2 + Ax_1 + B|x_1|\operatorname{sign}\sigma_2, \quad \sigma_2 = Cx_1 + x_2,$$

where $x=(x_1,x_2,x_3)$ is a controlled vector quantity; $\Phi(x_3,x_3)$ is a piecewise-linear function, possibly multiply-valued, which describes the nonlinearity of the constraint in the coordinate x_3 and of the free-playing slack; $\Psi(|x_1|\operatorname{sign}\sigma_1)$ is also a piecewise-linear function, which describes the zone of insensitivity of the switching device or controller; C is a positive constant. The problem is to evaluate the influ-

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ACC NR: ~~AP6000141~~ AP6000141

ence of the functions Φ and Ψ upon the stability of the null solution of system (1), and also to determine the parameters of self-excited oscillations if they arise. Orig. art. has: 2 figures, 16 formulas.

SUB CODE: 03,12/ SUBM DATE: 16Apr65/ ORIG REF: 002

Card 3/3 92

1 1950

29560
S/122/61/000/005/011/013
D221/D304

AUTHORS: Kogan, M.G., Candidate of Technical Sciences, Koroiev, V.P., Kleymenov, A.I., and Baranov, L.N., Engineers

TITLE: Baths for ultrasonic cleaning of components

PERIODICAL: Vestnik mashinostroyeniya, no. 5, 1961, 68 - 69

TEXT: The Scientific Research Technological Institute developed a series of baths, УЗВ-15-УЗВ-18 (UZV-15-UZV-18) for ultrasonic cleaning of components. They are made of stainless steel, and sources of ultrasonic vibrations of 20 Kc, in the form of magnetostrictive transformers, type ПМС-6М (PMS-6M) are fixed into their bottom. The radiation diaphragm of each transformer is a square with a 300 mm side. The baths are enclosed into soundproof casings, which form a decorative facing at the same time. Seals are provided in the covers of sound insulating casings. An outlet is fixed under the cover, and the former is connected to the ventilation system of the shop. The coiled pipe in the bath is used for feeding

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Baths for ultrasonic cleaning ...

cold or hot water to control the temperature of the cleaning fluid. The vibrators are cooled with normal feed water which is consumed at the rate of 3 l/min per vibrator. Gnerators УЗГ-10 (UZG-10) and UZG-2.5 supply the oscillatory power (10 and 2.5 kw respectively). Cleaning the components is achieved by organic dissolvents or in water solutions of alkalis and synthetic surface active substances. The use of acids is limited by cavitation and corrosion resistance of baths and of the radiation surface of vibrators. Gasolene Галоша (Galosha) as per ГОСТ- (GOST)443-56, is the most widely used organic dissolvent for removing grease and mechanical ingress of dirt. Cleaning components of resins and nitroenamels takes place in acetone mixed with alcohol, at a temperature of 30°C. Use of chloride organic dissolvents is restricted by their toxicity. Normally, cleaning in organic dissolvents is accomplished in two or three consecutive baths, the last one for final cleaning. The duration of operation depends on the degree of dirt and the form of components, and varies from 2 to 5 minutes. Cleaning in water solutions of alkalis and synthetic surface active substances takes place in one bath. A description is given of materials employed and

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Baths for ultrasonic cleaning ...

temperature conditions. These baths are efficient for components and assemblies for precision instruments and mechanisms, watches, optical parts and where high quality cleaning must be guaranteed. There are 2 figures.

X

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KLEYMENOV, A.Ye., inzh.

Mechanization of ticket office operations and problems of passenger fares. Zhel. dor. transp. 47 no.9:79-81 S '65. (MIRA 18:9)

KLZYMENOV, A.Ye., inzh.

Use of ticket printing machines in railroad stations. Zhel.dor. transp. 45 no.7:76-79 Jl '63. (MIRA 16:9)
(Railroads—Tickets) (Printing machinery and supplies)

[illegible], K.Ye.; SEMIN, K.P., inzh., retsenzent; [illegible], Ye.N., inzh., red.

[Mechanization and automation of the operations of station ticket and cash offices] Mekhanizatsiia i avtomatizatsiia biletno-kassovykh operatsii na vokzalakh. Moskva, Transport, 1964. 106 p. (MIRA 17:7)

PHASE I BOOK EXPLOITATION SOV/4556

Ayzenberg, B.I., Engineer, B. M. Kleymenov, Engineer, S.K. Mamontov, Engineer, B.M. Meyl'man, Engineer, Ya. S. Mindlin, Engineer, A.M. Palant, Engineer, and Ye. S. Yampol'skiy, Engineer

Proyektirovaniye mashinostroitel'nykh zavodov; spravochnoye posobiye po organizatsii i metodike proyektirovaniya (Planning of Machine-Building Plants; Reference Book on the Organization and Methods of Planning) Moscow, Mashgiz, 1960. 379 p. Errata slip inserted. 13,000 copies printed.

Ed.: B.I. Ayzenberg, Engineer; Reviewer: I.S. Zotov, Engineer; Ed. of Publishing House: V.I. Yakovleva; Managing Ed. for Information Literature; I.M. Monastyrskiy, Engineer; Tech. Ed.: Z.I. Chernova.

PURPOSE: This book is intended for engineers and technicians engaged in planning machine-building plants.

COVERAGE: The authors discuss problems in the organization of planning machine-building plants. Included is information on the makeup of planning organizations, development of documentation, selection of construction site, investigations of plants to be reconstructed, preparation of planning, examination and

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approval of documentation, and mechanization of calculations and drafting. Definition of principal concepts are given and the contents of the planning documentation are discussed. No personalities are mentioned. References accompany two chapters.

TABLE OF CONTENTS:

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KLEYMENOV, B.V.

PHASE I BOOK EXPLOITATION SOV/5055

Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh. 3d, 1958.

Gidrodinamicheskaya teoriya smazki. Opory skol'zheniya. Smazka i smazochnyye materialy (Hydrodynamic Theory of Lubrication. Slip Bearings. Lubrication and Lubricant Materials) Moscow, Izd-vo AN SSSR. 422 p. Errata slip inserted. 3,800 copies printed. (Series: Its: Trudy, v. 3)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Resp. Eds. for the Section "Hydrodynamic Theory of Lubrication and Slip Bearings": Ye. M. Gut'yar, Professor, Doctor of Technical Sciences, and A. K. D'yachkov, Professor, Doctor of Technical Sciences; Resp. Ed. for the Section, "Lubrication and Lubricant Materials": G. V. Vinogradov, Professor, Doctor of Chemical Sciences; Ed. of Publishing House: M. Ya. Klebanov; Tech. Ed.: G. N. Gus'kova.

PURPOSE: This collection of articles is intended for practicing engineers and research scientists.

COVERAGE: The collection, published by the Institut mashinovedeniya AN SSSR (Institute of Science of Machines, Academy of Sciences USSR) contains papers presented at the III Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh (Third All-Union Conference on Friction and Wear in Machines) which was held April 9-15, 1958. Problems discussed were in ... Theory of Lubrication and

Hydrodynamic Theory (Cont.) SOV/5055

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B101/B147

AUTHORS: Sanin, N. I., Shepeleva, Ye. S., Ul'yanova, A. V., Kleymenov, B. V.

TITLE: Synthesis and properties of antiwear additives to lubricants

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 397, abstract 22M122 (Tr. In-ta nefti. AN SSSR, v. 4, 1960, 98 - 117)

TEXT: A four-ball friction machine was used for studying the effect of various antiwear additives consisting of high-molecular aliphatic esters and organic compounds of S, P, and Cl. The authors employed solutions of the additives (6 mmoles per 100 g) in highly pure mineral oil (viscosity 20.8 centistokes at 50°C). Of no use under heavy load were additives the effect of which was based on adsorption only (high-molecular esters and higher fatty acids). Additives containing Cl (methyl esters of mono- and dichloro stearic acid, tetrachloro naphthalene, fractions of chlorinated paraffin) increased the critical load (CL) (the seizing load), and considerably reduced the wear under loads higher than CL. Additives of the types $(RS)_3P$ and $(RO)_3PS$ were found to reduce CL with increasing length

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Synthesis and properties...

of the alkyl, $R(C_3 - C_{18})$; efficient additives of these types should contain $R = C_3 - C_5$. $(RS)_3P$ proved to be more efficient than $(RO)_3PS$. In additives containing P and S, P mainly increased the CL while S decreased the wear under loads above CL. Phosphinic esters, $R'PO(OR)_2$, proved to be more efficient than phosphoric esters containing no C-P bond. Introduction of Cl in phosphinic and phosphoric esters increased the efficiency of additives, and reduced the wear under loads above CL. Phosphinic and phosphoric esters containing the CCl_3 group were of utmost efficiency. The effect of the CCl_3 group increasing the efficiency of antiwear additives was confirmed by the action of tetrachloro alkanes, $CCl_3(CH_2)_nCl$ ($n = 3 - 5$). The authors discuss the mechanism of action of antiwear additives containing various active elements and groups. There are 21 references. See also RZhKhim, 1961, 5M233. [Abstracter's note: Complete translation.]

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S/510/60/014/000/006/006
D244/D307

11976

AUTHORS: Sanin, P.I., Shepeleva, Ye.S., Ul'yanova, A.V., and Kleymenov, B.V.

TITLE: Synthesis and properties of anti-wear additives to lubricating oils

SOURCE: Akademiya nauk SSSR. Institut nefti. Trudy, v. 14, 1960, Khimiya nefti, 98 - 117

TEXT: The authors synthetized the wear-reducing properties of Cl, S and P compounds and also thio-phosphoroorganic and chlorophosphoroorganic compounds. The anti-wear properties were examined by dissolving the additives in a highly refined mineral oil, viscosity 20.8 cs at 50°C. The concentration of all the additives examined was 6 millimoles per 100 g of oil. The four-ball machine was used as a wear-tester with standard 12.7 mm diameter balls from ШХ-9 (ShKh-9) steel. The tests were conducted at 600 rpm. It was shown that the high molecular weight esters and acids which were assumed to have adsorptional anti-wear mechanisms, were not effective during the rubbing under high loads. Chlorinated esters of stearic acid and

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also fractions of chlorinated paraffin wax reduced the wear considerably above the seizure load. The best results were obtained with the wax fraction containing about 40 % Cl, the base oil containing about 7 % of the additive. For a series of esters $(R S)_3P$ and $(R O)_3$ PS the critical load that could be tolerated by the oil blend, decreased with the increasing length of the hydrocarbon radical R. Thus any of the compounds with R = C_3 - C_5 could be considered as possible additives. Trialkyl phosphates were less active as additives than trialkyl trithiophosphates. The presence of P and thiophosphate types exerted a predominant influence on their capacity to increase the critical load. The presence of S improved the wear-reducing properties at loads above the critical load. Chlorine in esters of chloralkylphosphorous acids acted in the same direction as S in thiophosphites. Thus the presence in one compound of P and Cl or P and S is very beneficial. The phosphite compounds $R'PO(OR)_2$ having a C-P link, were considerably more active than the compounds containing only alkoxy groups, such as phosphites. It was shown that compounds containing the group - CCl_3 have high anti-wear activity.

Esters CCl_3 P $(OR)_2$ increased the critical load to a value more than twice of that for the base oil and decreased the wear considerably in the region of high loads. It was established that the specific activity of the compounds containing CCl_3 group is due to a high reactivity of Cl in the group with metal surfaces, on which a chloride film is formed. The wear reducing properties of additives of the CCl_3 P $(OR)_2$ type is due to the simultaneous action of the reactive Cl and P resulting in the formation of chloride and phosphide films on the rubbing metal surfaces. There are 12 figures and 9 tables.

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AUTHORS: Sanin, P.I., Shepeleva, Ye.S. and Kleymenov, B.V.

TITLE: Some Data on the Activity of Additives Containing the CCl_3 Group

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, No.8, pp.24-28

TEXT: It has been shown that molecules containing phosphorus and CCl_3 groups are exceptionally good friction-reducing additives under high loads. Presumably this is due to the formation of phosphides and chloride layers on the metal. It is not merely the presence of chlorine which imparts activity, since monochloro-alkanes are not particularly effective, but the CCl_3 group as a whole. This group is known to be particularly reactive, as in the action of electrophilic or copper reagents, and in the formation of 1,5,5,6,6,10-hexachlorodecane from 1,1,1,5-tetrachloropentane. The base greases had a kinematic viscosity of 20.8 cs at 50°C. The trichloro compounds were formed by the polymerization of ethylene in the presence of carbon tetrachloride and were added as 6 times millimolar to the grease. The greases were subjected to the four-ball test. Firstly, the effect of the trichloro group was shown by

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Some Data on the Activity of Additives Containing the CCl_3 Group

comparing the base grease, which had a critical load of 64 kg, with α,α,α,ω tetrachloro-alkanes which had critical loads from 100 - 110 (C_5 was as high as 130 kg). This behaviour is analogous to that of CCl_4, which is active, and of monochloro-alkanes, which are relatively inactive. Secondly, the addition of phosphorus was shown to increase the surface activity still further, as shown by comparing the methyl, trichloro and chloro ethylethers of methylphosphonic acid (critical loads less than 170 kg), and the trichloroethyl-diethyl ether of phosphonic acid (130 kg). Increasing the additive concentration fourfold had no effect. Increasing the number of CCl_3 groups produces further striking increases in the high-load properties and in fact no critical loads could be observed with tri (trichloroethyl) phosphate and tri (trichlor-tert. butyl) phosphate, and the mark was only 8 mm in diameter at 300 kg load (30000 kg/cm^2 pressure). Smaller variations in activity and thermal stability were dependent on the position of the CCl_3 group in the molecule. There are 3 figures.

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E030/E412

Some Data on the Activity of Additives Containing the CCl_3 Group

3 tables and 11 references: 5 Soviet and 6 English.

ASSOCIATION: Institut neftekhimicheskogo sinteza AN SSSR
(Institute for Petro-Chemical Synthesis, AS USSR)

Card 3/3

KLEYMENOV, B.V., SAMIN, P.I.

Mobile table for a microscope measuring the wear of steel balls. Zav.lab. 26 no.7:884-885 '60. (MIRA 13:7)

1. Institut neftekhimicheskogo sinteza Akademii nauk SSSR.
(Microscopy) (Ball bearings—Testing)

KLEYMENOV, B. V.

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PHASE I BOOK EXPLOITATION SOV/6034

Konferentsiya po khimii i primeneniyu fosfororganicheskikh soyedineniy. 2d, Kazan', 1959.

Khimiya i primeneniye fosfororganicheskikh soyedineniy; trudy (Chemistry and Use of Organophosphorus Compounds; Conference Transactions) Moscow, Izd-vo AN SSSR, 1962. 630 p. Errata slip inserted. 2800 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Kazanskiy filial.

Resp. Ed.: A. Ye. Arbuzov, Academician; Ed. of Publishing House: L. S. Povarov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This collection of conference transactions is intended for chemists, process engineers, physiologists, pharmacists, physicians, veterinarians, and agricultural scientists.

COVERAGE: The transactions include the full texts of most of the scientific papers presented at the Second Conference on the Chemistry and Use of

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Chemistry and the Use of Organophosphorus (Cont.) SOV/6034

Organophosphorus Compounds held at Kazan' from 2 Nov through 1 Dec 1959. The material is divided into three sections: Chemistry, containing 67 articles; Physiological Activity of Organophosphorus Compounds, containing 26 articles; and Plant Protection, containing 12 articles. The reports reflect the strong interest of Soviet scientists in the chemistry and application of organophosphorus compounds. References accompany individual reports. Short summaries of some of the listed reports have been made and are given below.

TABLE OF CONTENTS [Abridged]:

detergents, anticorrosion agents, antiwear additives, as well as serve as demulsifiers, antioxidants, and depressants. Methods for preparing industrial additives by synthesis are pointed out and described.

Sanin, P. I., Ye. S. Shepeleva, and B. V. Kleymenov [Institute of Petrochemical Synthesis]. Organophosphorus Compounds With CCl_3 as Additives to Lubricants 389

A synthesis of compounds containing the CCl_3 group has been made and their effect as wear-reducing additives under friction conditions at high loads studied. It has been shown that the effect of this type of compound depends largely on the presence of the CCl_3 group in the molecule and that the chloride film on the friction surface of the metal develops due to the effect of the chlorine atoms in the CCl_3 group.

Voskresenskiy, V. A. [Kazanskiy inzhenerno-stroitel'nyy institut (Kazan' Construction Engineering Institute)]. Trichlorotricresyl

KLEYMENOV, B.V.

SHEPELEVA, YE.S., ULIANOVA, A.V., SHER, V.V., KLEYMENOV, B.V.,

Synthesis of friction wear-reducing additives and investigation of the mechanism governing their action

Report to be submitted for the Sixth World Petroleum Congress, Frankfurt, 19-26 June 63

SANIN, P. I.; SHEPELEVA, Ye. S.; MANNIK, A. O.; KLEYMENOV, B. V.

"Chemical modification of friction surfaces."

report submitted to Intl Lubrication Conf, Washington, D.C., 13-16 Oct 64.

SANIN, P. I.; SHEPELEVA, Ye. S.; MANNIK, A. O.; KLEYMENOV, B. V.

"Chemical modification of friction surfaces."

report presented at the Intl Lubrication Conf, Washington, D.C., 13-16 Oct 64.

Inst of Petrochemical Synthesis, AS USSR, Moscow.

KLETSKOV, P.

Technical and scientific cooperation is an important factor of strengthening international economic contacts. Vnesh.torg. 27 no.11:24-34 '57. (MIRA 10:11)
(Russia--Foreign economic relations)

KLEYMENOV, F.

Fruitful cooperation. Vnesh. torg. 30 no.2:15-20 '60.
(MIRA 13:2)

(Russia--Foreign relations--China)
(China--Foreign relations--Russia)

KLEYMENOV, Fedor Ivanovich; OLENEV, V.S., redaktor; ISLAMKINA, T.F., redaktor; ISAKOVA, P.G., tekhnicheskiy redaktor.

[Underground coal gasification] Podzemnaia gasifikatsiia uglei. Moskva, Izd-vo "Znanie," 1955. 39 p.(Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii.Ser.4, no.35) (Coal Gasification, Underground) (MLRA 8:11)

KLEYMENOV, P.I.

ZAKUTSKIY, Ivan Petrovich; KRUGLOV, Oleg Vladimirovich; KLEYMENOV, P.I., otvetstvennyy red.; SABITOV, A., tekhn.red.

[Underground gasification of coal in the Donets Basin] Podzemnaia gazifikatsiia kamennykh uglei v Donbasse. Moskva, Ugletekhizdat, 1957. 26 p. (MIRA 11:4)
(Donets Basin--Coal gasification, Underground)

ZHUKOVA, A.P., rukovoditel'; POPOV, I.A., rukovoditel'; RYKOVA, Z.L., rukovoditel'; ARKHIPOV, N.A., starshiy nauchnyy sotrudnik; DZHIMSHELEYSHVILI, Sh.P., starshiy nauchnyy sotrudnik; DMITRIYEV, O.V., starshiy nauchnyy sotrudnik; ZHURAVKOV, M.V., starshiy nauchnyy sotrudnik; ISTOMIN, P.S., starshiy nauchnyy sotrudnik; KURBATOV, A.K., starshiy nauchnyy sotrudnik; METLINA, T.I., starshiy nauchnyy sotrudnik; PUGINA, N.I., starshiy nauchnyy sotrudnik; BOYKOV, M.A., otvetstvennyy red.; EEL'KE, O.V., otvetstvennyy red.; KLEYMENOV, P.M., otvetstvennyy red.; SMOLDYREV, A.Ye., otvetstvennyy red.; SHARAYEV, A.N., otvetstvennyy red.; BUTAZOV, V.V., tekhn.red.; SABBITOV, A., tekhn.red.

[Progressive practices and new equipment] Peredovoi opyt i novaia tekhnika. Moskva, Ugletekhizdat, 1957. 386 p. (MIRA 11:4)

1. Russia (1923- U.S.S.R.) Ministerstvo ugol'noy promyshlennosti. TSentral'nyy institut tekhnicheskoy informatsii. 2. TSentral'nyy institut tekhnicheskoy informatsii Ministerstva ugol'noy promyshlennosti SSSR (for Zhukova, Popov, Rykova, Arkhipov, Dzhimsheleyshvili, Dmitriyev, Zhurakov, Istomin Kurbatov, Metlina, Pugina)
(Coal mines and mining)

KLEYMENOV, I.

27-11-15/31

AUTHOR: Kleymenov, I., Chief of Mechanical Assembly Shop of the Plant imeni Vladimir Il'ich , and Paley, A., Senior Foreman of the Shop

TITLE: A Graduate Came to the Workshop (Vypusknik prishel v tsekh) From the Plant's Experience (Iz zavodskogo opyta)

PERIODICAL: Professional'no - Tekhnicheskoye Obrazovaniye, 1957, # 11, p 22-23 (USSR)

ABSTRACT: The article states that the collective of any enterprise is, to a considerable extent, composed of graduates of trade schools and FZO. The Mechanical Assembly Shop of the Plant imeni Vladimir Il'ich is typical in this respect. Every year, many new workmen come to the shop from Trade School # 51 (Remeslennoye uchilishche # 51). The article emphasizes that the youths quickly learn to handle the tools and equipment and show high productiveness. A number of men who have distinguished themselves in their jobs, and others who have been less successful are mentioned. The article describes the cases where the young workmen have displayed zeal, and complains about the little attention given by the foremen to the students

Card 1/2

A Graduate Came to the Workshop. From the Plant's Experience 27-11-15/31
during their practical training at the plant.

ASSOCIATION: Plant imeni Vladimir Il'ich (Zavod imeni Vladimira Il'icha)

AVAILABLE: Library of Congress

Card 2/2

KLEYMENOV, I., insh.

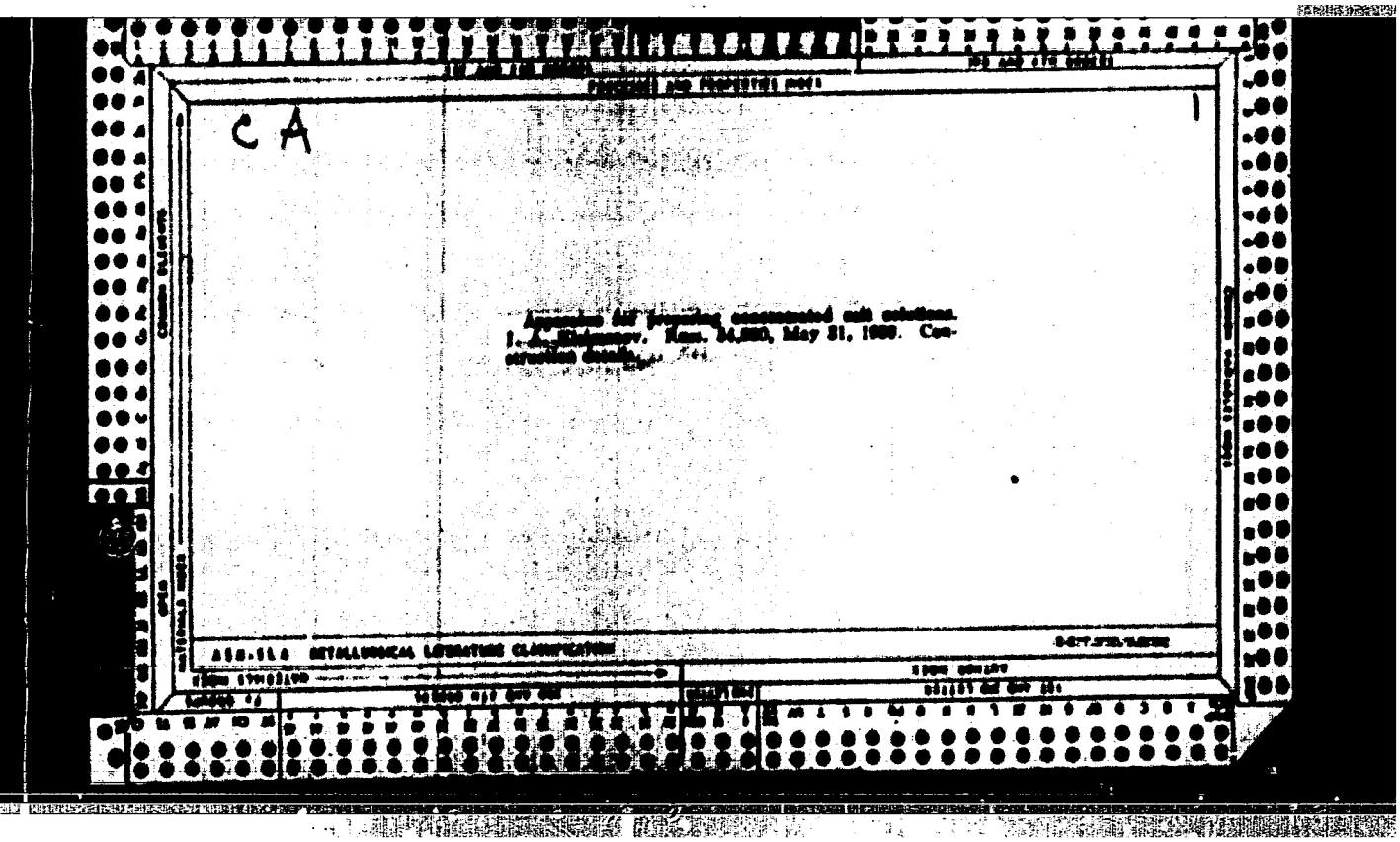
Automatic cooling tower for the freezing-on of ice. Khol. tekh. 37 no. 6:45-47 N-D '60. (MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta.
(Cooling towers) (Ice)

KLEYMENOV, I.

Assembly of 24-meter reinforced concrete trusses. Prom.stroi. i inzh. soor. 4 no.4:45 Jl-Ag '62. (MIRA 15:9)

1. Trest "Makstroy".
(Trusses) (Precast concrete construction)



/Engineering

Cars, Railroads
Refrigeration

Jun 1947

PA 28T45

eymenov's Isothermal Refrigerator Cars," S. O.
v, Candidate in Technical Sciences, I. A. Kley-
ov, Engr, 2 pp

h Zheleznykh Dorog" No 6

article describes two variations of a system of
ing refrigerator cars. The principle is the same
for the ordinary cars, except that Kleymenov uses
ystem of pipes running throughout the car, and
that it guarantees an even low temperature of
. The Central Research and Investigation Engi-

28T45

/Engineering (Contd)

Jun 1947

s Institute is going to build a group of refrig-
or cars on this same principle to test the ef-
iveness of the suggested system.

28T45

FOMIN, A.; KLEYMENOV, I.

Refrigerator Cars

Kleymenov's all-metal constant temperature railroad car Khol. tekh. 29 No. 1, 1952.

Monthly List of Russian Accessions. Library of Congress, May 1952. UNCLASSIFIED

BULANOV, F., inzhener; KLIMENKOV, I., inzhener.

Experimental transportation of fresh fruit in refrigerated freight cars. Khol.tekh. 30 no.4:22-27 O-D '53. (MLRA 7:3)
(Refrigerator cars)

KLEYMENOV, I.A., inzh.

Automation in ice manufacture. Zhel. dor. transp. 43 no. 1:68-69 Ja '61. (MIRA 14:4)

(Ice--Manufacture) (Automatic control)

[redacted], kand.tekhn.nauk; USPENSKAYA, Z.P., kand.khim.nauk; [redacted], T.M., mladshiy nauchnyy sotrudnik.

Changes occurring in salt fish kept in brines. Trudy VNIRO 35:159-176 '58. (MIRA 11:11)

1. Laboratoriya metodov kontrolya i standartizatsii rybnykh produktov Vsesoyuznogo nauchno-issledovatel'skogo instituta morskogo rybnogo khozyaystva i okeanografii.
(Fish, Salt) (Fishery products--Storage)

BELOUSOV, D.P., inzh.; SABUROV, N.V., prof.; SHIROKOV, Ye.P., kand. sel'khoz. nauk; MOSHKOVICH, I.K., agronom; UL'YANOV, A.P., agronom; KRASNOKUTSKAYA, S.V., kand. sel'khoz. nauk; ZOLOTOVA, A.I.; KALININA, N.N.; DAVIDOVA, R.B., prof.; KUHKO, V.I., kand. tekhn. nauk; KLEYMENOV, I.Ya.; VOROB'YEVA, A.A.; DEMEZER, A.A.; ROSSOSHANSKAYA, V.A., red.; BALLOD, A.I., tekhn. red.

[Home canning and processing of agricultural products] Konservirovanie i pererabotka sel'skokhoziaistvennykh produktov v domashnikh usloviiakh. [By] D.P. Belousov. Moskva, Sel'khozizdat, 1963. 406 p. (MIRA 16:10)
(Canning and preserving) (Cookery)

VLASHCHENKO, L.F.; NOVIKOV, V.M.; ZINOV'YEVA, M.M.; SIDOROVA, A.P.; KARDASHOVA, A.A.; KLEYMENOV, I.Ya.; KRASNOPOL'SKIY, N.M. [deceased]; LUKASH, Ye.G.; SAMOFALOV, P.Ye.; YASHINA, Ye.I.; KULIKOV, P.I., dots., retsenzent; MAKAROVA, T.I., kand. tekhn. nauk, retsenzent; MERENBURG, A.N., spets. red.; KOSSOVA, O.N., red.; SOKOLOVA, I.A., tekhn.red.

[Handbook for the technologist of the fishing industry] Spravochnik tekhnologa rybnoi promyshlennosti. Moskva, Pishchepromizdat. Vol.1. 1963. 589 p. (MIRA 17:3)

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USSR/Diseases of Farm Animals. Diseases Caused by Protozca.

Abs Jour: Ref Zhur-Biol., No 3, 1958, 12283.

Author : Goncharov, I. Ye., Kleymenov, K. G., Fedorchenko, V. V., Kobenko, S. P.
Inst : Daghestan Institute of Agriculture
Title : Experimental Uses of ASD FR-2 in Theileriosis of Large Horned Cattle. (Preliminary Report).

Orig Pub: Tr. Dagest. s.-kh. in-ta, 1955, 6, 25-26.

Abstract: In cases of theileriosis and in cases of a mixed invasion of theileriosis and piroplasmosis, ASD FR-2 was intravenously administered in a 25 percent solution of a 0.7-1.0 ml/kg dose with a simultaneous hypodermic injection of a 10 percent caffeine solution in the usual dose. The preparation was administered during the clinical stage of the disease. Of the

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KLEYMENOV, M. Ya.

22019 Kleymenov, M. Ya. Lecheniye sinom yazvy zheludka i dvenadtsatiperstnoy kishki v usloviyakh metalaliziravannogo zheludochno-kishech-nogo sanatoriya. Sov. Vrachab. Sbornik, vyp. 14, 1949, s.7-10

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949.

KLEYMENOV, N.A.

USSR/ Physical Chemistry - Kinetics. Combustion. Explosives. Topochemistry. Catalysis B-9

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11220

Author : Kleymenov N.A., Antopova I.N., Markevich A.N., Malbandyan A.B.
Title : Oxidation of Methane by Oxygen Atoms Formed on Thermal Decomposition of Ozone

Orig Pub : Zh. fiz. khimii, 1956, 30, No 4, 794-797

Abstract : Formation of peroxide on oxidation of CH_4 under conditions of flow (mixture CH_4 : O_2 = 1:1, rate of flow 400 cc/minute) in the presence of 1.45% O_3 becomes apparent at the same temperature (100-110°) that decomposition of O_3 begins. On this basis the authors consider that initiator action is associated not with the O_3 molecule but with O atoms which are decomposition products of O_3.

Inst Chem. Phys., AS USSR, Moscow

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USSR/Kinetics. Combustion. Explosions. Topochemistry. Catalysis. B-9

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 26246

Author : N.A. Kleymenov, A.M. Markevich
Inst : Academy of Sciences of USSR
Title : Part Played by Surface in Reaction of Thermal Decomposition of Ozone.

Orig Pub : Dokl. AN SSSR, 1956, 110, No 1, 105-107

Abstract : The decomposition of ozone (O_3) in a flow at atmospheric pressure was studied by the method of divided calorimetric measurements. The decrease of warming up was observed with the increase of the radius of the central capillary containing one of the junctions of the differential thermocouple. In authors' opinion, this suggests that the decomposition of O_3 includes an endothermic stage of O_3, dissociation taking place on the vessel walls. The next stage seems to be a homologous exothermal reaction, in which the atoms produced on the surface take part. The earlier proposed mechanism (RZhKhim, 1955, 36907) consisting in a homologous dissociation of O_3 molecules and a following recombination of O atoms on the vessel surface is rejected.

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AUTHORS: Kleymenov, M. A., Malbandyan, A. B. 20-1-33/58

TITLE: The Interaction Between Ozone and Methyl Hydroperoxide (O vzaimodeystvii mezhdu ozonom i gidroperekis'yu metila).

PERIODICAL: Doklady AN SSSR 1958, Vol. 118, Nr 1, pp. 125-127 (USSR)

ABSTRACT: Into an evacuated retort of a content of 8,5 l (which was kept at a given temperature in a thermostat) given quantities of hydroperoxide and then of ozonized oxygen were quickly introduced. The concentration of ozone exceeded in all experiments the concentration of peroxide 5-6fold. By means of the process discussed here peroxide can qualitatively be separated from ozone. The results of these experiments are given in a diagram which shows the dependence of the concentrations of methyl peroxide on the duration of keeping the reacting mixture at the temperatures of 25, 34, 43, 52 and 64°. The points are situated well on the corresponding curves within the frame of possible errors. From the kinetic curves the constants of the reaction velocity and from the temperature dependence of the constant K of the reaction velocity the activation energy of the interaction between ozone and methyl hydroperoxide were then determined. In the diagram for the dependence of the magnitude lg K on 1/T the experimental points

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fit well on a straight line. From the tangent of the angle of inclination of this curve the value E = 7000 kal/mol. was obtained for the activation energy. From the series of kinetic curves the following can be seen: if about 15 minutes are necessary for the decrease of the concentration of the peroxide by 50 % at 25 ° this time reduces to 2,5 minutes at 64°. With a reaction period of 25 minutes practically all the peroxide has decomposed under the influence of ozone. Besides these experiments a special investigation for the determination of the main products of reaction of the interaction between ozone and methyl hydroperoxide was made. The analysis of these products showed that peroxide under the influence of ozone transforms mainly into methyl alcohol. In the reaction products about 80% of methylated alcohol and about 6 % of formaldehyde were found. The primary products of the oxidation of the hydrocarbons in the presence of slowly decomposing ozone are the hydroperoxides of the corresponding hydrocarbons. The authors, however, could not determine them as, under the influence of not-decomposed ozone, they transformed completely into alcohols. There are 3 figures, 1 table, and 5 references, 2 of which are Slavic.

5(4)
AUTHORS: Kleymenov, N. A., Nalbandyan, A. B. SOV/20-122-1-28/44

TITLE: Concerning the Problem of the Rôle of Ozone in the Initiation of the Reactions of Oxidation of Saturated Gaseous Hydrocarbons (K voprosu o roli ozona v initsiirovanii reaktsiy okisleniya nasyshchennykh gazoobraznykh uglevodorodov)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 1, pp 103-105 (USSR)

ABSTRACT: This paper gives some new data concerning the oxidation of propane and hydrogen which according to the authors' opinion confirm the mechanism of the action of ozone through the oxygen atoms. The experiments were carried out at atmospheric pressure. The products of the oxidation of propane- peroxides and aldehydes - were collected and then they were analyzed by the usual methods. The experimental data concerning the oxidation of hydrogen by ozonized oxygen are represented by a diagram. A noticeable decomposition of the ozone begins at a temperature of 85°, and also the oxidation of hydrogen begins at the same temperature. If the contact time increases from 21 to 40 sec, the temperature of the

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beginning of the decomposition of ozone (and also of the oxidation of hydrogen) is diminished to 20 - 25°. Similar results are found for the oxidation of propane. Also in this case, the beginning of the oxidation agrees with the decomposition of ozone. This coincidence apparently is caused by the formation of active particles - by atoms or by excited molecules of oxygen which initiate the chain reaction. By further experiments, the nature of the initiation was investigated. According to these results, the excited oxygen molecules do not play an essential rôle in the oxidation reaction and, therefore, the initiation of the reaction must be connected with a reaction of atomar oxygen. In order to investigate the correctness of this conclusion, the authors carried out experiments concerning the initiation of the reaction by oxygen atoms which were produced immediately in a mixture of methane and oxygen. The photochemical initiation was used for this purpose. If the methane-oxygen mixture (75 % CH_4 and 25 % O_2) circulates under a pressure of 15 torr, ~ 9 % of the initial methane was oxidized to hydrogen peroxide, and ~ 7 % - to formaldehyde. This experiment took

5 hours and the products of the reaction were frozen out at the temperature of the liquid nitrogen. It is very probable that formaldehyde is a secondary product of the photochemical decomposition of hydrogen peroxide. The following conclusion may be drawn from the data published in this paper and also in a previous paper: The oxidation of saturated gaseous hydrocarbons by ozonized oxygen is initiated by oxygen atoms produced by the thermal decomposition of ozone. There are 3 figures and 7 references, 1 of which is Soviet.

PRESENTED: April 24, 1958, by V. N. Kondrat'yev, Academician

SUBMITTED: April 17, 1958

5(4)

SOV/20-122-3-27/57

AUTHORS: Kleymenov, M. A., Malbandyan, A. B.

TITLE: The Investigation of the Reaction of the Low-Temperature Oxidation of Methane Initiated by Atoms of Oxygen Produced by the Thermal Decomposition of Ozone (Issledovaniye reaktsii nizkotemperaturnogo okisleniya metana, initsiirovannoy atomami kisloroda, obrazuyushchimisya pri termicheskom raspade ozona)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 3, pp 420-423 (USSR)

ABSTRACT: According to the results of previous papers, the oxygen atoms produced by thermal decomposition of ozone initiate the oxidation of methane by ozonized oxygen. Under such conditions, methyl hydroperoxide and formaldehyde are the most important products of the reaction. It was necessary to investigate the dependence of the yield of these products on various parameters (composition of the mixture, concentration of ozone, time of contact etc.) and to compare the found relations with the results of the oxidation of methane and its higher homologues sensitized by mercury. The oxidation by ozonized oxygen was carried out at atmospheric pressure. A diagram shows the

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kinetic curves of the formation of methyl hydroperoxide, found at T = 150° for 3 compositions of the mixture. The experiments were carried out for a constant concentration of ozone in the initial mixture. In the investigated time intervals, the yield of peroxide grows according to a linear law. A second diagram shows the relation between the yield of peroxide and formaldehyde as a function of the ozone concentration for an equimolecular mixture of methane and oxygen (contact time 21 sec, temperatures 150 and 180°). The quantities of the produced peroxide and formaldehyde are proportional to the initial ozone concentration in the mixture. This linear relation applies as long as the waste gases (otkhodyashchiye gazy) contain ozone. In order to investigate the influence of methane upon the yield of methyl hydroperoxide, a special series of experiments was carried out at T = 150°. According to the results found, the quantity of the produced peroxide grows linearly with the concentration. The amount of the decomposed ozone remains constant. Similar results were found for T = 180°. If the concentration of oxygen during the experiments does not remain constant and if the oxygen contained

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in the mixture is replaced by methane, the above-mentioned linear relation becomes a non-linear one. Other diagrams show the increase of the quantity of the decomposed ozone with the concentration of methane and the dependence of the peroxide yield on oxygen. For oxygen concentrations from 30 to 90 %, the quantity of the peroxide produced does not depend on the concentration of oxygen. According to a comparison of the results of this paper with the results of the photochemical oxidation of methane, ethane, and propane, the mechanism of oxidation is equal for both of these cases. There are 4 figures and 7 references, 6 of which are Soviet.

PRESENTED: May 23, 1958, by V. N. Kondrat'yev, Academician

SUBMITTED: May 21, 1958

KLEYMENOV, N. A., Candidate Chem Sci (diss) -- "The kinetics and mechanism of low-temperature oxidation of methane". Moscow, 1959. 11 pp (Acad Sci USSR, Inst of Chem Phys), 175 copies (KL, No 24, 1959, 128)